# WORK PLAN

***CES Environmental Services, Inc. Houston***
***4904 Griggs Road***
***Houston, TX 77021***

***EPA Contract Number EP-S6-0702-001***
***Task Order 62***

***Draft***

***September 15, 2014***

Issued to: _____ Date: _____

Copy #: _____ ☐ Controlled ☐ Uncontrolled

9856315

# *Table of Contents*

## *List of Tables*



## *List of Attachments*

## *Acronyms and Abbreviations*

| | |
|---|---|
| ADS | |
| AHA | Activity Hazard Analysis |
| AST | Above Ground Storage Tank |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CB&I | CB&I Federal Services LLC |
| FCA | Field Cost Accountant |
| HASP | Health and Safety Plan |
| OSC | On-Scene Coordinator |
| PPE | personal protective equipment |
| RM | Response Manager |
| RFP | Request for Proposal |
| SOW | scope of work |
| SSHO | Site Safety and Health Officer |
| SWSES | SWS Environmental Services |
| START | Superfund Technical Assessment and Response Team |
| TCEQ | Texas Commission on Environmental Quality |
| T&D | Transportation and Disposal |
| USEPA | U.S. Environmental Protection Agency |

# 1.0 Introduction

This Work Plan provides a functional guideline for the removal of containerized waste materials, contaminated materials, contaminated debris, and treatment and disposal of storm water at CES Environmental Services, Inc. – Houston. This Work Plan is based on the U.S. Environmental Protection Agency's (USEPA) Task Order C_EPS60702_62_R06. Variations in scope and approach will be required as the site assessment and project progresses. Variations in scope and approach will be addressed by amendments to this document after reviewed and approved by CB&I management if necessary and the USEPA On- Scene Coordinator (OSC).

## 1.1 Background

See **Attachment A** USEPA Fact Sheet CES Environmental Services, Inc. Site Proposed Removal Action.

## 1.2 Technical Approach

The purpose and scope of CB&I Federal Services (CB&I) and it team subcontractor SWS Environmental Services (SWSES) Work Plan is to develop and implement a site specific operational plan to complete the objectives listed in Task Order 62. The task order operational objectives are:

- Collect, treat, or dispose of the storm water collected at the site.
- Prepare for the disposal of the waste materials in vacuum boxes, roll off boxes, frac tanks, tanker trailers, Above Ground Storage Tanks (ASTs), vats, totes, drums and smaller containers (lab packs).
- Dispose of waste material in vacuum boxes, roll off boxes, frac tanks, tanker trailers, ASTs, vats, totes, drums and smaller containers (lab packs).
- Decontaminate and prepare all on site waste containers for disposal or scrapping..
- Remove, collect, and prepare the contaminated concrete, asphalt, soils and debris for disposal..
- Provide sampling assistance of site waste and contaminated materials.
- Restore the site and damaged environment, as much as practically possible and as directed by the OSC.

CB&I will outline an approach to execute the project in a safe and efficient manner. A site specific Health and Safety Plan (HASP) will accompany this document. This Work Plan includes a description of the operational objectives, planning, personnel, equipment, supplies and materials for CB&I, its team subcontractor SWS Environmental Services (SWSES), subcontractors, suppliers, and vendors. CB&I/SWSES's approach is divided into the preplanning tasks and site activities.

### *1.2.1 Preplanning*

CB&I will develop a HASP and Work Plan prior to initiation of any field work. The preplanning process includes vendors and subcontractor identification and prequalification, setting up the necessary procurements for the scheduled work activities, transportation and disposal companies, rental equipment companies, expendable material vendors, and supply providers. During the preplanning phase, CB&I/SWS will complete logistics for crew, equipment, and material mobilizations. Data analysis of the historical site data and USEPA site assessment will be initiated looking toward a transportation and disposal strategy.

#### *1.2.1.1 Site Plans*

Besides this Work Plan, CB&I will develop a site-specific HASP for all the anticipated site activities. This document is the baseline for assurance that CB&I's activities will be in compliance with Federal and State safety standards and CB&I guidelines and procedures for general construction, hazardous waste, and emergency response activities. The HASP will be a living document and will be updated when new activities are initiated. This will be done by the CB&I Response Manager (RM) completing an Activity Hazard Analysis (AHA), and submitting it to the Health and Safety Manager for his approval. The AHA will be included as an amendment to the HASP.

CB&I will designate the RM as the Site Safety and Health Officer (SSHO) during all work activities. SWSES will have a qualified Health and Safety Manager on site who will serve as the alternate SSHO. The SSHO is responsible for maintaining and documenting compliance with the HASP and safety guidelines. All of CB&I's on-site personnel and subcontractor crews will review and acknowledge the HASP and attachments. A Job Safety Analysis (JSA) will be prepared for each project activity. As a standard procedure, CB&I will implement its Leading Indicators (CMS-710-05-PR-04600) and I-Care (CMS-710-05-PR-02600) programs. Each work day will begin with a Tailgate Safety Meeting to communicate to all site workers, the activities scheduled to be performed on site and review the applicable safety/operational protocols.

#### *1.2.1.2 Procurements*

CB&I's Subcontract Manager will execute all subcontracts and procure all the necessary equipment and supplies outlined in this Work Plan. Procurement will be initiated in the field by the CB&I RM and CB&I Transportation and Disposal Coordinator via Statement of Work

(SOWs) and Purchase Requisitions, and passed to the Subcontract Manager for execution and procurement.

#### *1.2.1.3 Waste Disposal Strategy*

CES Environmental Services filed for bankruptcy in 2010 and since that time the bankruptcy trustee has been managing the site waste. Analytical chemical analyses of the various vacuum boxes, roll off boxes, frac tanks, tanker trailers, and Above Ground Storage Tanks (ASTs) have been generated. Starting in August the USEPA OSC has been conducting a site assessment, new analysis is being generated. CB&I's Transportation and Disposal Coordinator is reviewing this data to develop a strategy for disposal of the waste material and the availability of disposal services for the various type of waste streams listed in Table 2.

### *1.2.2 Site Activities*

Site activities for the response phase of the task order will start with mobilization of the SWSES crews from LaPorte, TX. A typical SWSES crew will consist of an H/S Manager, Foreman, Truck Drivers, Equipment Operators, and Laborers. The number of personnel will be added or removed on an as-needed basis during the course of this project and matched to the daily project tasks. The proposed personnel resources are shown in Table 1, Resource Requirements for type of project task.

An office trailer with power and communication will be set up at an approved location. Sanitary facilities - portable toilets and personnel wash stations will be delivered and placed. All personnel will be briefed on the Work Plan and HASP. Personnel will be familiarized with the site layout, the operational activities and the HASP. Crews will only operate in the current work areas and support zones. Other areas of the site will be off limits. Emphasis will be placed on accident prevention, hazard recognition and control, and emergency procedures. CB&I and SWSES believe in a behavioral based Safety Program. The crews will initiate the JSA and I-Care documents daily. The Response Manager and Health and Safety Manager will generate Leading Indicator documents daily. Site maps with directions to the local medical facilities (hospital and clinic) and a listing of emergency contact information will be posted in the office trailer and provided in all vehicles.

#### *1.2.2.1 Work Zones*

Work zones will be established in accordance with 29 Code of Federal Regulation 1910.120 Hazardous Waste Operations and Emergency Response and the HASP. Regulated work areas at the project site will be divided into the following three zones:

- Support Zone
- Contamination Reduction Zone
- Exclusion Zone

The Support Zone will be located in an uncontaminated location of the site along Griggs Road in the old employee parking lot. This area will contain the office trailer and sanitary facilities. Eating, drinking, and smoking will only be allowed in the designated areas within the Support Zone.

The Contamination Reduction Zone is the transition zone between the Exclusion Zone and the Support Zone and will be used as a controlled area for workers to don and doff personal protective equipment (PPE) and perform the established decontamination procedures prior to entering the Support Zone. This area will be located outside of the entry gate on Wayland Road. Egress from the Exclusion Zone and decontamination of personnel and equipment will occur in the Contamination Reduction Zone.

The Exclusion Zone is the area where the chemical, physical, or other hazards occur/exist during project work. Fencing, banner tape, signs, and other appropriate means will identify the location of the Exclusion Zone. Access will be controlled to this area by only allowing entry through the Contamination Reduction Zone. Entry will be limited to personnel properly trained for such work activities, familiar with site protocols, and protected with necessary PPE. The Exclusion Zone will change based on the activities schedule for each day. The Daily Exclusion Zone will be posted in the Office Trailer and discussed prior to operations commencing daily.

#### *1.2.2.2 Site Preparation*

Once the work zones have been delineated, the active work areas will be inspected to identify hazards, such as pits, dangerous debris, protruding pipes, spikes, holes, or other physical obstructions. Unsafe areas will be marked with banner tape or high visibility fence until controls can be implemented. These areas will be clearly marked on the site maps.

#### *1.2.2.3 Rainwater Collection, Treatment or disposal*

At the CES Environmental Services, Inc. site, the Texas Commission on Environmental Quality (TCEQ) conducted a recent emergency response action utilizing their contractor Oil Mop. During the response earthen berms were placed behind the CES Main Office building and around the grassy area near the original rear corner of the facility. The berms are holding contaminated storm water. Two large pools of water currently exist. This water may require treatment for oil removal, sediment removal and organics prior to discharge to the storm sewer, sanitary sewer or transported for offsite disposal. Final decisions on how the storm water will be handled will be made once the sample data is available.

Should onsite water treatment be needed a portable treatment system with a four pot filter system will be installed and operated to treat standing water and/or storm water collected during rain events. SWSES will utilize trash pumps or a vacuum truck to move water to the filter pot system. Filtration will start with a 25 micron filter; additional filtration can be done as required.

The treated storm water will be pumped to a clean frac tank and analyzed prior to discharge into the City of Houston Sanitary Sewer, Storm Sewer or off site via tank trucks.

#### *1.2.2.4 Preparation of Waste for Disposal*

Various waste streams are presently onsite requiring offsite disposal. Those waste streams include but are not limited to oils, liquids, sludges, and numerous solids including contaminated soil and debris. The site contains many different types of waste in vacuum boxes (11), roll off containers (2), frac tanks (12), tanker trailers (2), ASTs (20), vats, totes, drums and smaller containers. This waste will not be able to be transported as they are currently held. Materials will have to be removed from the original containers and package for DOT approved transportation to the disposal facilities. The site contains some open poly tanks covered with polyethylene sheeting. These tanks, after sampling and compatibility testing will be collected and moved to secured storage frac tanks.

##### *1.2.2.4.1 Vacuum Boxes and Roll off Boxes*

SWSES will utilize an Air Machine, ADS Hose, and a clean vacuum box to move product from the existing boxes. The material will be moved to a DOT approved vacuum box suitable for transportation and disposal. Grounding rods will be installed near the operation to ground both boxes. An ohm meter will be used to check the ground. Crew will utilize two people on the Air Machine hose at all times. As the work progress, the rear door of the vacuum box will be removed. After the majority of material has been removed a Bean Pump will be used to rinse the residual material from the box. This residual material will be placed in a DOT approved vacuum box.

If material in the vacuum boxes cannot be removed by the Air Machine, the truck wash/sump area at the CES Environmental Services, Inc. facility will be utilized. This area would be cleaned and the physical hazards in this area addressed. The contaminated vacuum box would be moved by a tractor trailer to the clean area. The SWSES crew would utilize a 5,000 psi pressure washer to cut the elastic material. The contaminated material would be moved to a roll off for shipment to the approved disposal facility.

##### *1.2.2.4.2 Frac Tanks and Tanker Trailers*

A grounded vacuum truck will be utilized to remove materials from the frac tanks and tankers. The existing valves will be utilized to remove the product unless the valves are non-operational or damaged. If this is the case the vacuum hose will be placed through the existing man ways. The tanks will be rinsed with the Bean pump and removed by the vacuum truck. The frac tank will be shipped to a cleaning facility to complete the cleaning process. If this is not possible a confined space entry will be properly executed to finish the tank cleaning utilizing a 5,000 psi pressure washer. The vacuum truck will also transport the material for disposal. All bonding and grounding procedures are outline in the HASP.

*1.2.2.4.3 Above Ground Storage Tanks*

The ASTs are currently being accessed and sampled. Handling and disposal methods will be determine by the type of material, amount of material, form of the material, and the number of layers of material in the tanks. SWSES will utilize a combination of a vacuum truck and air machine to remove the residual products. A 5,000 psi heated pressure washer and standard industrial degreasers will be used to remove the residual oils. If necessary a 20,000 psi water blast unit with a 3-D device will be used to clean the interior of the tanks. The device will be inserted from the top of the tank and positioned three feet from the top of the tank, pressurized and allowed to run for 15 minutes. The device will be lowered five feet and the method repeated until the unit is five feet from the bottom of the tank. Spot cleaning will be done with the 5,000 psi pressure washer.

*1.2.2.4.4 Vats and Totes*

The CES Environmental Services trustee contractor will handle this material

*1.2.2.4.5 Drums*

This activity is currently scheduled to be handled by the trustee's contractor

*1.2.2.4.6 Bagged Materials*

MSDS will be found for the known bagged material on site. The MSDS will be utilized for disposal. Materials will be placed in a roll off utilizing a small excavator and front end loader. If possible the material may be utilized on site as solidifying agents for liquid waste should the waste stream warrant the need and the material is compatible.

*1.2.2.4.7 Small Containers*

The trustee's contractor is currently handling this operation.

### *1.2.2.5 Decontamination of site waste containers*

After the wastes have been removed, the remaining containers will need to be cleaned, crushed, or scrapped. The method will be determined by the type of container and the type of residual material. Methods will be utilized as outline in the previous sections 1.2.2.4.1 and 1.2.2.4.3. Mechanical methods will be emphasized over labor intensive methods.

### *1.2.2.6 Removal of contaminated materials including concrete, asphalt, soils and debris*

The START contractor will clearly mark and plot the areas requiring removal. Proper care will be taken to remove the materials in such a manner that the tracks of the equipment do not egress into the contaminated area. Excavators and skid steers will be utilized to remove the materials. A concrete saw will be used if intact concrete has to be removed. Laborers will be present as spotters to minimize over-excavation and removal. They will be ready to apply water mist as needed for dust suppression.

#### *1.2.2.7 Waste Profiling Sampling*

CES Environmental Services historical chemical analyses of the various vacuum boxes, roll off boxes, frac tanks, tanker trailers, and Above Ground Storage Tanks (ASTs) is available as well as the newly generated analytical data from the ongoing site assessment. The historical data will be utilized for reference purposes only. CB&I will utilize this new and current data to complete waste profiles of the identified waste material for proper disposal. Additional waste streams will be sampled, sent out for analysis and profiled as needed.

#### *1.2.2.8 Transportation and Disposal of Identified Area Materials*

CB&I will subcontract transportation of all the nonhazardous soil, construction debris, liquid waste, recyclable materials and any hazardous materials directly from the site to the appropriate facilities, via a fully licensed and permitted transporter. Disposal will be in accordance with all local, state and federal regulations. CB&I will ensure that all disposal facilities meet requirements of the CERCLIS Off Site rule, prior to the shipment of waste.

#### *1.2.2.9 Site Restoration*

CB&I will fill areas were material was removed as outlined by the OSC. Grass and cover crops will be planted in the natural areas.

#### *1.2.2.10 Site Close Out*

Off-site work will include completion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) off-site disposal reports, processing outstanding vendor invoices, and finalizing cost. As listed on the Task Order CB&I will provide a description of the work that was performed on the Task Order. Manifest, analytical reports and field documentation will be provided. The T&D Coordinator will complete the CERCLA off-site disposal reports when the final disposal invoices are processed and paid, and the certificates of destruction or land filling are received.

The FCA will complete processing of the outstanding invoices and move to reconciliation of cost throughout the project between Removal Cost Management System, CB&I's Accounting System and SWS's Accounting System. The FCA will finish cost tracking enabling the OSC to recommend funding de-obligation for the project.

## *1.3 Risk Assessment and Mitigation*

CB&I will be utilizing its Team Subcontractor SWSES for the operational elements addressed in the previous section. Risks are associated with all site operations. CB&I and its Team Subcontractor SWSES will minimize the risk through control of the area, good management practices, established industry practices and compliance with this Work Plan and associated HASP.

CB&I has generated a HASP associated with this work plan. It will be strictly followed. CB&I CMS procedures and protocols have been identified for this work plan. The HASP and work plan will be utilized and strictly followed by CB&I and SWSES. Risk will be mitigated by use of the CMS behavioral safety program, leading indicator and I-Care observation programs.

### *1.3.1 Work Zones Risk and Mitigations*

The CES Environmental Services, Inc. in Houston, TX is an uncontrolled site that has been abandoned for four years. During this period the site has been open to salvage operations. The site has had the metal walkways removed from all the buildings. The grates have all been removed from the water drains and sumps. Large debris piles are located throughout the property. The site currently holds pools of water at each end. Petroleum contamination is located at various areas of the property. Discarded hazardous materials are on site with damage packaging.

Texas One call will be notified of the three property locations involved with the CES Environmental Services location. Utility marking will be completed prior to work zone set up. The support zone will be located in the former parking lot of the facility. This area is clear of contaminates. Access will not be granted to other sections of site until the site risks are addressed as outline by work activity.

### *1.3.2 Site Preparation Risk and Mitigation*

Once the work zones have been delineated, the active work area will be inspected to identify the physical hazards, such as pits, debris, protruding pipes, spikes and holes or other surface defects in the concrete pad. Prior to work, debris piles will be moved or declared off limits and marked with banner tape. Pits will be covered or taped off. Physical obstructions will be removed or marked off with banner tapes or cones. The site map will be updated for each day's activities.

### *1.3.3 Rainwater Collection, Treatment or Disposal Risk and Mitigation*

Rainwater will be collected and removed or treated. Treated water will be collected in a frac tank prior to discharge and tested for the necessary analytical parameters required for ensuring the treated water passes for discharge to the storm sewer or sanitary sewer. If this material is sent off site it will match the wastewater profile.

Risks are associated with the use of trash pumps or vacuum trucks; poor connections and leaking hoses the most common risks. Hoses will be securely connected; the hose clamps will be secured and locked. Hoses will be inspected prior to use. The filter will be inspected prior to use and used as specified in filter manual. A laborer will be assigned to the filter to monitor pressure.

The use of vacuum trucks also has the associated risk of movement while operations are on-going and blind spots or field of vision limitations. The vacuum truck drivers will utilize back up alarms and horn signals to alert workers to their movements. All personnel will stay clear 50 feet when vacuum trucks are moving.

### *1.3.4 Preparation of Waste Vacuum Boxes, Roll Off Boxes Risk and Mitigation*

Risks are associated with the use of the Air Machine vacuum truck. The Air Mover does generate static electricity. This will be mitigated by connecting the vacuum truck to a grounding rod. The connection will be checked with an Ohm meter. Another risk is that the machine can become attached to the operator and possibly bruising the operator. This risk will be mitigated by insertion of a T off of the main line monitored by a laborer. If the vacuum hose becomes stuck the vacuum can be broken by use of the T .line.

Some of the material in the vacuum and roll of boxes may be flammable. Air monitoring will be required for LEL prior to the operation. If LEL safety limits are exceeded the box will be vented prior to the operation. This material also has a low order threshold but the smell is very strong. Level B protections will be utilized to eliminate this risk.

The Bean Pump is a high volume low pressure pump. The risks associated with it are inadvertent discharges outside the work area, projectile generation, and noise. Proper PPE, hearing protection, and a 50-foot no access limit will be established to mitigate these hazard.

The pressure washing operation also has associate risks. The 5,000 psi washer could damage the operators or other laborers tissue if the spray comes in contact with them. This risk will be mitigated by the use of following our procedures and use of proper PPE including face protection goggles, face shield, metatarsal boots and shin guards.

### *1.3.5 Frac Tanks, Trailer Tanks Risk and Mitigation*

Some of the risks associated with this section were discussed earlier i.e. air monitoring, use of the bean pump and pressure washers. In addition, there is a fall risk associated with the frac tanks. This will be mitigated by always using the lowest valve on the frac tanks to remove the product. The existing connection will be utilized and only if these are damaged will product be removed from over the top of the tank. The existing steps or ladder will be inspected prior to use. CB&I fall protections procures will be followed with use of full body harnesses with double lanyards.

The use of vacuum trucks also has the associated risk of movement while operations are on-going and blind spots or field of vision limitations. The vacuum truck drivers will utilize back

up alarms and horn signals to alert workers to their movements. All personnel will stay clear 50 feet when vacuum trucks are moving.

Confined space entries are sometimes used to finish the tank washing procedure. On this project we will utilize commercial washes to complete the frac tank cleaning process minimizing the hazard associated with confined space entries.

### *1.3.6 Above Ground Storage Tanks Risk and Mitigation*

Some of the risk associated with this section were discussed earlier i.e. air monitoring, use of the bean pump, pressure washers, falls and blind spots. Additional risks are associated with the use of a 20,000 psi washer. SWSES and CB&I have developed a detailed check list prior to any use of this equipment to minimize the associated hazards of this device. The use of a remote 3-D device will mitigate many of these hazards. All personnel will maintain a 100 ft buffer zone will the 3-D device is being utilized.

Another risk is the chance of line busting while the 20,000 psi washer is being utilized. Strict PPE requirement will be followed to shut down the machine so the line can be replaced. All hoses will be inspected prior to use.

### *1.3.7 Bagged Material Risk and Mitigation*

The bagged material is currently located in a warehouse on pallets. The pallets are unsecured. Bags of the material are open. The warehouse has an exposed gas line stub. The warehouse area will be cleaned and the gas line stub will be marked, flagged andcaution cones will be placed around it. The manufacturer and the bagged material will be identified. The MSDS will be obtained and review by all workers. The pallets will be shrink wrapped, prior to movement. The forklift driver will be a certified fork lift driver.

# 2.0 Project Requirements and Resource Needs

CB&I will be utilizing its Team Subcontractor SWS Environmental Services for the majority of personnel. All personnel include CB&I's and SWSES's will be listed along with our subcontractors, equipment, and materials in Table 1, Resource Requirements. Table 1 is provided as an outline. If different personnel or resources are required the RM will discuss this prior to mobilization of these resources with the OSC and included in the Daily Work Order.

# 3.0 Waste Management

Upon receipt of the Task Order, CB&I will initiate the waste management process and a T&D Coordinator will be assigned to the project. The T&D Coordinator will support the RM in the following ways:

- Evaluation of treatment options and cost effectiveness
- Waste minimization and consolidation
- Recycling/reclamation efforts
- Waste stream determinations
- Evaluation of disposal options
- Regulatory compliance, including the U.S. Department of Transportation, Resource Conservation and Recovery Act, and the USEPA off-site rule

## 3.1 Waste Management Strategy

The primary strategy will be to manage all of the waste generated in a compliant and cost effective manner. The identified waste will be characterized using data from the latest START sampling events, provided by the USEPA and new analytical data from CB&I waste stream sampling events. Proper characterization of the waste streams is critical to maintain the lowest possible disposal costs. The T&D Coordinator will work with the disposal facilities to determine the best possible treatment method for the various streams as well as the possibility of consolidating like waste streams.

# 4.0 Subcontracting Approach

Subcontracting procedures for this response begin with the identification of specialty services and equipment that CB&I does not typically supply, or services that CB&I is contractually obligated to subcontract (e.g., analytical laboratories, waste transportation, and waste disposal, etc.) Table 4, Subcontracting Services and Procedures, shows a list of necessary services that will be subcontracted and the rationale for subcontracting, procurement procedures, and basis of the award.

The FCA and RM, with the assistance of the Subcontract Manager will identify potential vendors for each subcontractor service. CB&I will search its nationwide vendor database, national yellow pages, Small Business Administration's small business sourcing tools, PRONET, contractor's blue books, regional buying guides, and local resources such as the Chamber of Commerce and state's small and minority business lists. Local vendors will be identified and contracted, whenever possible, but some specialty services may require the use of nonlocal firms.

A Request for Proposal will be prepared and will include the specific sources of services for this Task Order. Bid items will typically be provided on an indefinite quantity, unit price basis. Invitation for Bids will be reviewed by the OSC for comment and/or concurrence and transmitted to potential bidders.

The CB&I Procurement Department, in conjunction with the RM and FCA, will be responsible for preparing and soliciting all final quotations for subcontracted services. The Procurement Department will also verify that all subcontractors providing services for this project are financially sound, insured, and contractually bound to protect the interests of the USEPA and CB&I. Contract requirement for OSC review and the Contracting Officer approval on items above limits specified in CFS Contract and Contract Modifications will be strictly followed.

# 5.0 Cost Control Procedures

CB&I's cost controls consist of cost tracking and cost minimization. CB&I's cost tracking procedures have been developed over the last 20 years in response to numerous federal contracts, including over 20 years working with the USEPA on emergency response contracts. Cost tracking procedures are implemented in accordance with Shaw and federal guidelines to ensure costs are properly entered into CB&I independent accounting system (Vision). This system ensures that costs are assigned to the appropriate project and activity. Costs from Vision will be reconciled against Removal Cost Management System.

CB&I will manage costs by using local subcontractors such as SWSES here in LaPorte, TX or vendors when it is financially beneficial. Strict adherence to CB&I's procurement procedures and our local vendor knowledge-base will reduce purchasing costs by using the most qualified vendors at the lowest prices. The RM/SSHO will continually review site activities, as well as personnel, to identify and control the risk of potential accidents and reduce the possibilities of down time due to safety-related incidents. Recycling and reclamation will be utilized to the maximum extent possible.

# 6.0 Management Approach and Communications

The RM's field team for completing this Task Order includes our Team Subcontractors, Health and Safety Manager, Foreman, Truck Driver, Equipment Operators and Laborers. These personnel will be fully dedicated to the CES Environmental Services, Inc. Task Order 62. CB&I will supply the Subcontract Manager and T&D Coordinator. CB&I may also utilize specific subcontractors for specialized services.

The main line of communications occurs between the RM and the OSC. CB&I will conduct a kick-off meeting, site safety orientation meeting, ongoing Work Plan development, afternoon RM/OSC meetings, and daily operational and tailgate safety meetings to ensure that the communication continues successfully throughout the project.

## 6.1 Daily Work Report

The daily work report will be submitted the afternoon prior to the next day's field work. The report, at a minimum, will include:

- Primary health and safety concerns of the project tasks
- Subcontracting needs
- List of all personnel and their roles on site
- List of any off-site personnel hours work with description
- List of all equipment
- General comments
- Problems, issues, concerns, and their resolutions
- Percent of completion of each task
- RM acknowledgment
- OSC acknowledgment

## 6.2 Daily Response Manager and On-Scene Coordinator Meetings

While on site, daily and as-needed discussions between the RM and OSC/RPM will be conducted to facilitate the mutually beneficial flow of information. CB&I's procedure is to hold a meeting every work day morning prior to site operations to discuss and amend the previous day's submission and every afternoon to discuss the work order, along with the present work tasks, schedule, and progress on future work tasks.

# *Tables*

**Table 1**
**Resource Requirements**

**(Note: May be adjusted as site conditions warrant or per USEPA direction)**

| Task | Site Staff | Support | Equipment | Materials |
|---|---|---|---|---|
| Site Preparation/Set Up | Response Manager<br>Field Cost Accountant<br>Health and Safety | Program Manager<br>Subcontract Manager<br>T&D Coordinator | | |
| Rainwater Collection | Response Manager<br>Health and Safety<br>Foreman, Truck Driver, Laborers (3) | Subcontract Manager | Vacuum Truck, Pick up (2), Skid Steer | Oil Absorbent Boom, Oil Absorbent Pads, |
| Waste Preparation | Health and Safety, Foreman, Truck Driver, Laborers (6) | Subcontract Manager<br>T&D Coordinator | Vacuum Truck, Pick up (3), Air Mover, Vacuum Box Flange, ADS Hose, Vacuum Box (2), Bean Pump, 5,000 psi pressure washer, 20,000 psi water blaster, 3-D Nozzle, Man Lift | PPE, Level B<br>Breathing Air,<br>Oil Absorbent Pads, Polyethylene Sheeting, Fall Protection. |
| Waste Profiling | Health and Safety Foreman | Subcontract Manager<br>T&D Coordinator | | Sample bottles, sludge judges, glass rods. |
| Transportation and Disposal | Response Manager | Subcontract Manager<br>T&D Coordinator, Equipment Operator, | Fork lift<br>Vacuum Trucks, Triaxle Trucks | |
| Decontamination | Response Manager<br>Health and Safety<br>Foreman, Truck Driver, Laborers (6) | Subcontract Manager<br>T&D Coordinator | Vacuum Truck, Pick up (3), Air Mover, ADS Hose, 5,000 psi pressure washer, 20,000 psi water blaster, Small Excavator, skid steer, Front End Loader | PPE, Level C Cartridges<br>Oil Absorbent Pads, Polyethylene Sheeting, Drums, Roll Offs |
| Site Restoration | Response Manager<br>Health and Safety<br>Foreman, Truck Driver, Laborers (6) | | , Small Excavator, Uniloader, Front End Loader. | Roll offs |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*Note(s):*
*PPE denotes personal protective equipment.*
*T&D denotes transportation and disposal.*

**Table 2**
**CES Environmental Services, Inc. Houston Waste Streams**

| Waste Stream | Quantity | Waste Classification | Type of Facility |
|---|---|---|---|
| Non-Hazardous Waters | 20,000 gallons | Non-Hazardous | Wastewater Treatment Facility |
| Oil/Water Mixture | TBD | Non-Hazardous | Oil Recycling Facility |
| Oil/Water Mixture | TBD | Hazardous | Oil Recycling Facility and/or Subtitle C Landfill or Incinerator |
| Hazardous Oil | TBD | | |
| Hazardous Sludge | TBD | VOC and SVOC Hazardous Waste | Subtitle C Disposal facility including landfills and/or incinerators |
| Solid materials including various debris | TBD | Non-Hazardous | Subtitle D Landfill |
| Storm Water | TBD | Non-Hazardous | Local POTW Discharge or Offsite Wastewater Treatment Facility |

# *Attachments*

United States Environmental Protection Agency

# CES Environmental Services, Inc. Site Proposed Removal Action

**Harris County**
**Houston, Texas** **August 2014**

**This Fact Sheet will tell you about...**

- Background Information
- Potential Threats to Public Health and Welfare
- What to Expect
- For More Information

## Background Information

The CES Environmental Services Site ("Site") is a former chemical recycling facility that is located at 4904 Griggs Road, Houston, Harris County, Texas. Other contiguous properties associated with the Site are 4900 Griggs Road and 5910 Wayland Street. The Site is surrounded by residential, educational, and commercial properties.

CES Environmental Services filed for bankruptcy in 2010. The property is part of the CES Bankruptcy Estate, which is being managed by a Trustee appointed by the Bankruptcy Court. The Trustee's job is to liquidate assets of the Estate for the benefit of the creditors.

There are numerous chemical containers located on-site that have not been actively managed or secured to prevent releases to the environment since August 2010. The Site has recently experienced two incidents of vandalism, which occurred in March and July 2014. These incidents resulted in the spillage of chemicals and waste to the facility property and the adjacent residential neighborhood. These spill responses were addressed by the Estate, the City of Houston, the Texas Commission on Environmental Quality ("TCEQ") and the EPA.

Although lacking adequate funding, the Trustee has been and continues to address waste issues at the Site. The EPA and TCEQ will begin the process of addressing the waste issues on the property. At the same time, the Estate will complete its ongoing cleanup actions at the Site, which include the disposal of 1 vacuum box, 1 roll-off box, and waste piles. The Estate's actions for these items are being coordinated with both EPA and TCEQ.

The Site consists of approximately 11 vacuum boxes, 2 roll-off boxes, 12 frac tanks, 2 Tanker Trailers, 20 above ground storage tanks (ASTs), 15 waste water treatment tanks, waste piles, and numerous totes, vats, drums, and smaller containers.

## Potential Threats to Public Health and Welfare

In addition to the numerous chemical containers located on-site that pose a risk to Public Health and Welfare, the soil areas of the Site have not been investigated. However, due to historic operation, as well as the recent chemical spills from vandalism, the soil is expected to be contaminated. The contaminants within the containers include: benzene, cresols, 2,4,6-trichlorophenol, methyl ethyl ketone, 1,2-dicholorethane, and corrosive and ignitable wastes.

The Site fencing has been repaired to remove open access to the facility; however, the fencing will not prevent those intent on criminal mischief from entering to vandalize the facility. These vandals have contributed to releases from the containers on-site, thereby, creating a risk to themselves and public health. Additionally, these individuals have previously compromised the security fencing by stealing fence panels and undermining the basic security of the facility.

The EPA, TCEQ, and the City of Houston will work together to eliminate the threat this Site presents to your neighborhood. We need your support to make sure that those intent on vandalism and theft are kept away. Please be vigilant and notify the Houston Police Department of suspicious activity in or around the facility.

## What to Expect During the Next Month and Beyond

The EPA anticipates activities beginning the week of August 18, 2014. The actions will begin with Site setup activities, and sampling and evaluating chemical containers. Upon receipt of

analytical data and waste acceptance by the off-site disposal facilities, waste will begin being shipped off-site for proper disposal at an approved disposal facility.

Expect to see an almost daily presence on the site by EPA, TCEQ, or the City of Houston and our contractors until this current action is complete. It should be expected that this cleanup may take several months or more to complete. Federal, and State funding will be utilized for actions on the site. The City of Houston will work closely with EPA and the TCEQ and provide needed local support. This current response action will include:

- Removal/disposal of chemicals on the facility
- Removing/disposing of visible chemical spillage to soil and other surfaces on the facility.

**For More Information**
If you would like more information about the CES Environmental Services Removal Action, contact:

**Gary Moore, EPA On-Scene Coordinator**
U.S. EPA Region 6
Phone: 214.665.6609 or 1.800.533.3508 (toll-free)
moore.gary@epa.gov

**Bill Little, EPA Community Involvement Coordinator**
U.S. EPA Region 6
Phone: 214.665.8131 or 1.800.533.3508 (toll-free)
little.bill@epa.gov

**Terry Andrews, TCEQ Project Manager**
Texas Commission on Environmental Quality
Phone: 713.767.3560
terry.andrews@tceq.texas.gov

***All inquiries from the news media should be directed to: EPA Region 6 Press Office***
***Phone: 214.665.2200***

EPA
United States
Environmental Protection
Agency

Region 6
1445 Ross Ave. (6SF-VO)
Dallas, TX 75202